

## OPTIONS FOR AGROFORESTRY IN THE CAP 2014-2020

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### Introduction

This abstract gives an overview of the implementation by EU Member States (MS) and Regions of agroforestry related options in the Common Agricultural Policy (CAP) 2014-2020. It considers both Pillar I (direct support) and Pillar II (subsidies focused on rural development, environment and climate change), and discusses the opportunities for trees on farms to contribute to the new Ecological Focus Area requirements within Pillar I. It highlights the contradiction between incentives for agroforestry given in Pillar II and the disincentives caused by confusion in interpretation of Pillar I rules.

### Pillar II Incentives for Agroforestry in CAP 2014-2020

For the purpose of the CAP, “agroforestry” (AF) is concisely defined in Article 23 of Regulation 1305/2013 as “*land use systems in which trees are grown in combination with agriculture on the same land*”. Grants are available within Rural Development Plans (RDPs, i.e. “Pillar II” of the CAP) to establish new agroforestry systems on either agricultural or forest land, although the latter option has been very little used. The main instrument for new agroforestry on agricultural land is submeasure 8.2. This has been activated in the Rural Development Plans (RDPs) of 35 of the 118 RDP MS/regions in the EU:

- **France** (15 of 27 regions: *Auvergne, Basse-Normandie, Guadeloupe, Guyane, Haute-Normandie, Île-de-France, Limousin, Lorraine, Martinique, Midi-Pyrénées, Nord-Pas-de-Calais, Pays de la Loire, Picardie, Poitou-Charentes, Rhone-Alpes*)
- **Spain** (6 of 17 regions: *Andalucía, Asturias, Extremadura, Galicia, País Vasco, Comunidad Valenciana*)
- **Italy** (5 of 21 regions: *Basilicata, Marche, Puglia, Umbria, Veneto*)
- **Portugal** (3 of 3 regions: *Continente, Azores, Madeira*)
- **United Kingdom** (3 of 4 regions: *Northern Ireland, Scotland, Wales*)
- **Belgium** (1 of 2 regions: *Flanders*)
- **Hungary** (single RDP for whole MS)
- **Greece** (single RDP for whole MS)

If current RDPs are fully implemented, around 74,000 ha of agroforestry will be established using submeasure 8.2, although financial and area targets remain to be confirmed, and some plans the targets include rehabilitation of existing agroforest areas. However, the inclusion of a budget for agroforestry does not guarantee that RDP money will be used for this purpose. Only 6.5% of planned spend (4.3% of planned area) on new agroforestry was achieved by MS/regions for Measure 222 in the CAP 2007-2013 (Lawson and Pisanelli 2015).

In addition to submeasure 8.2, funding is available to assist agroforestry in other measures (M) or sub-measures (SM), including:

- short-term farm-forest operational groups, management exchanges or farm visits (M-1)
- advisory services to farmers, forest holders and SMEs in rural areas (M-2)
- small-scale tree or hedge planting, or improving exploitation of cork, pine-nuts, wild mushrooms, wood, resins, gum etc (M-4)
- indemnisation of damage caused by natural hazards (M-5)
- new or existing small-scale enterprises in the farm-forestry sector (M-6)
- afforestation schemes with low minimum planting densities (SM-8.1)
- silvopastoral practice and management of AF to minimise damage from fire (SM-8.3)
- restoration of environments damaged by fire and disease, including AF (SM-8.4)
- forest management plans for better C-sequestration and habitat management (SM-8.5)
- improving the tree planting stock including vegetative production (SM-8.6)
- producer groups and activities for quality control, accreditation and certification (M-9)
- establishment or restoration, for agri-environmental purposes, of traditional agricultural systems, including wood pastures, hedgerows and orchards (M-10)
- compensation for restrictions in agriculture intensification (M-12)

- forest environment, conservation and climate services, including inventory of genetic resources and international networking (M-15)
- cooperation between farmers/foresters and those in the food/timber chain (M-16)

### **Pillar I *Disincentives* for Agroforestry in CAP 2014-2020**

#### *Eligibility for Direct Payments*

While 35 regions made submeasure 8.2 available within their RDPs, uptake by farmers will be limited by **uncertainty** over whether the area will remain eligible for Pillar I direct payments (Basic Payment Scheme - BPS, or Single Area Payment Scheme (in most new member states) - SAPS). This confusion arises because Delegated Regulation 640/2014 (Article 9.3) stipulates that agricultural parcels with a tree density of more than 100 **trees**/ha will not be eligible for direct payments. This limit was intended by the Commission to apply to larger trees but it is being interpreted by many MS/regions to mean a limit of 100 **seedlings**/ha at the time of planting.

Sound tree-planting practice will establish several times more seedlings than the number of mature trees which will be harvested in the final crop, or be retained in continuous cover systems. This larger number of young trees allows selective thinning of the plantation to favour trees with well-formed stems, and buffers the plantation in the case of disease attack or damage from weather or animals. A typical planting density for new silvoarable and silvopastoral systems might be around 400 trees/ha, particularly with genetically unimproved seedlings.

The European Agroforestry Federation (EURAF) has suggested to EU DG-AGRI that clarification should be given to MS/regions that the “100 tree/ha rule” in Regulation 640/2014 should apply to trees larger than an agreed crown-diameter threshold, and not to “seedling trees”. In practice, a threshold crown diameter of 4m has been used in Regulation 639/2014 for trees which are recorded as “landscape features”, and count as Ecological Focus Areas. For consistency, this diameter threshold could also be used for “areas of agroforestry” in Regulation 640/2014. The following clarification is suggested: **“farmers can plant more than 100 seedlings/ha under submeasure 8.2, but they must regularly thin, prune or pollard to ensure that there are never more than 100 trees/ha with a crown diameter exceeding 4m”**.<sup>8</sup>

Another issue is a practical one. National or regional Land Parcel Identification Systems (LPIS) are used to verify eligibility for agricultural payments. From 2016 all LPIS will use orthophotos with a resolution of 1:5 000, with each pixel having a width of 0.5 m. The EU-JRC Guidelines indicate that around 36 pixels are needed to “reliably identify and map any feature on an orthophoto” (Luketić et al. 2015). This represents a 3x3m square, but, since trees are often the same colour as their background, a diameter threshold of 4m corresponds well to the measurement constraint.

However, in the next CAP, EURAF would prefer a different solution to the 4m-crown threshold. The pruning and thinning regimes, intended evolution of agricultural use, and tree-density at “final stocking” would be described by farmers in a mandatory “agroforestry management plan” which would be approved when the area is granted Pillar II funding, and would be verifiable within the LPIS system at any time in the rotation.

#### *Ecological Focus Areas*

Any farmer with more than 15ha of (non-organic) arable land is expected to show that an area equivalent to 5% of his/her arable land (fallow, temporary grassland and cropland) can be mapped as an Ecological Focus Area (EFA) within the national or regional LPIS system. The EFA elements must be on, or adjacent to, arable land, with the exception of the afforestation or short rotation coppice EFAs, which are classed as “forest” or “permanent crops” respectively (European Commission 2014). There are 19 EFA elements which can be activated by “countries” (Table 1). At least 9 of these elements involve trees or coppice. Agroforestry is eligible, but only when established within an official CAP Pillar II scheme, and only on arable land.

In deciding how to activate Landscape Features as Ecological Focus Areas, “countries” may use their existing Cross-Compliance rules, or accept the dimensions and characteristics specified in Article 45 of Regulation 639/2014:

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<sup>8</sup> Note: a) while 100 trees/ha is the threshold set by the EU, it may be set lower than this by member states; b) for silvopastoral areas “countries” can choose to implement Article 10 of Regulation 640/2014 which uses a pro-rata reduction of eligibility for direct payments based on crown-cover and other factors.

- hedges or wooded strips with a width of up to 10 meters;
- isolated trees with a crown diameter of minimum 4 meters;
- trees in line with a crown diameter of minimum 4 meters - the space between the crowns shall not exceed 5 meters;
- trees in group, where trees are connected by overlapping crown cover, and field copses of maximum 0,3 ha in both cases;
- field margins with a width between 1 and 20 meters, on which there shall be no agricultural production;
- ponds of up to a maximum of 0,1 ha. Reservoirs made of concrete or plastic shall not be considered ecological focus areas;
- ditches with a maximum width of 6 meters, including open watercourses for the purpose of irrigation or drainage - channels with walls of concrete shall not be considered ecological focus area.
- traditional stone walls.

Table 1. Activation of Ecological Focus Area (EFA) elements by EU “countries”: the UK and Belgium count as 4 and 2 “countries” respectively for Pillar I purposes (European Commission 2015).

EFA Element	BEF	BEW	BG	CY	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UKE	UKN	UKS	UKW	Sum
Hedges or woody strips	A	G	A		G		G	G	G			A	G	GS			S	A				A		A					G	G		A	17
Isolated Trees		G	A		G		G					A	G	GS			S	AG	A			AG		A		GS							13
Trees in Line		G	A		G		G	G	G	AG		A	G	GS			S	A	A			A		A		GS							16
Trees in Groups/ Copses	A	G	A		G		G	G	A	AG		A	G	A	A		S	G	A			A		A		GS							18
Field Margins	A	G	AG		A		AG					A		A	A		A	A	A			A		A		GS		A			A		17
Ponds	A	G	A									A	G	GS	A		S	G				G	AG	A									12
Ditches	A	G	A		G	G	G	G	G	A		A	G	GS			A					G	AG	A									17
Traditional Stone Walls							G	G				A	G	GS								G								G		A	8
Other Landscape Features						G	G		G					Y	G		G	G				G		GS			G			G			11
Landscape Features Active	5	7	7	0	6	2	8	5	5	3	0	8	7	9	4	0	6	8	5	1	4	7	1	7	0	4	1	1	1	4	1	2	
Fallow Land	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	30
Terraces			Y		Y		Y					Y		Y			Y						Y		Y								8
Buffer Strips	Y	Y	Y	Y		Y	Y		Y	Y		Y	Y	Y	Y		Y	Y				Y		Y		Y		Y		Y			19
Hectares of Agroforestry (ha)	YY	Y		Y			Y				YY	YY		YY			Y	YY					YY					Y		YY			12
Forest Edge Strips - non prod	Y	Y	Y				Y					Y	Y	Y			Y	Y				Y											10
Forest Edge Strips - productive	Y											Y		Y			Y	Y				Y											6
Short rotation coppice	Y	Y	Y		Y	Y	Y	Y	Y			Y	Y	Y			Y	Y			Y	Y	Y		Y		Y	Y	Y		Y		22
Afforested areas	Y			Y	Y		Y		Y		Y	Y		Y			Y	Y				Y	Y	Y					Y		Y		15
Cover or catch crops	Y	Y	Y		Y	Y	Y		Y			Y	Y		Y		Y	Y			Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	21
N-Fixing Crops	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	31
Total EFA Elements Active	14	14	14	5	12	6	17	8	11	6	4	18	13	18	8	2	15	18	7	4	8	15	5	13	3	10	4	6	5	9	5	6	

Note: “G” and “S” indicate elements of “cross compliance” legislation (Regulation 1306/2013 Annex II) related to landscape (GAEC-7) and biodiversity (SMR 2/3) respectively. “A” refers to Article 45 of Regulation 639/2014 “Further Criteria for Ecological Focus Areas”, with dimensions for areas and widths which may be different to those in cross compliance rules. “YY” for agroforestry indicates that it is “activated” both in Pillar I as an EFA and Pillar II as a rural development measure.

A recent study, commissioned by the EU-JRC, compared the ecological advantages of 18 of the EFA elements and found agroforestry ranked highest in almost all “countries” surveyed (Tzilivakis et al. 2015). It is therefore a pity that only 12 (of the 32) “countries” have activated the agroforestry EFA, and five of these cannot apply it since they have no agroforestry areas in an official Pillar II scheme (Table 2). Three of the “countries” which are implementing Pillar II support for agroforestry (Greece, UK-Scotland, UK-Wales) decided not to activate the agroforestry EFA element, either because few farms reach the 15 ha arable-land threshold, or because their Pillar II schemes focus on silvopasture. Thus, only France, Spain, Italy, Hungary, Portugal, Flanders and Northern Ireland are able to use the agroforestry EFA measure, and, because it is limited to arable land (unlike afforestation and short rotation coppice), the eligible will be very small.

The introduction of these Landscape Features and EFAs into the validation rules for direct payments in the CAP 2014-2020 means that national and regional LPIS systems must adapt, and most will now implement four overlapping spatial layers.

- **Reference Parcel Layer:** where each polygon has a unique ID and reference area. These will normally be field boundaries, and in some “countries” will link to the national cadastre. They will be checked annually by the farmer in IACS returns.
- **Agricultural Parcel Layer:** which contain information from IACS returns on the agricultural cover types eligible for direct payments (arable land, permanent crop and

permanent grassland) and crop type. Each agricultural parcel will be equal or smaller than the equivalent Reference Parcel since it excludes “ineligible” areas like rock, rivers, ponds, tracks, buildings, land which is “ungrazable”, and tree clumps which are not identified as “landscape features”. Fruit trees and short rotation coppice are classed as identified as permanent crops and will be eligible for direct payments. Some newly afforested areas of “forest land” will also be eligible, but payments will end after the “commitment period” (12 years for afforestation in the current CAP).

- **Ecological Focus Area Layer:** showing the EFA elements which have been activated by a “country”. These areas will be present on or adjacent to arable land, with the exception of coppice and afforestation.
- **Landscape Feature Layer:** showing features identified for retention according to GAEC-7 and/or Article 45 of Regulation 639/2014

Farmers in areas where LPIS information are available as Open Data (e.g. France, Spain, Flanders, Czech Republic, Croatia, Estonia) have access to an invaluable resource for planning the use of trees on farms, and for running economic models of future yields and economic impacts on landscapes with a patchwork of agroforestry as in Figure 1. However, as we have seen, the rules regarding Pillar I disincentives and Pillar II incentives for AF are very complicated and national agroforestry organisations need to publish guides similar to that produced by the French Agroforestry Association (AFAF 2015).

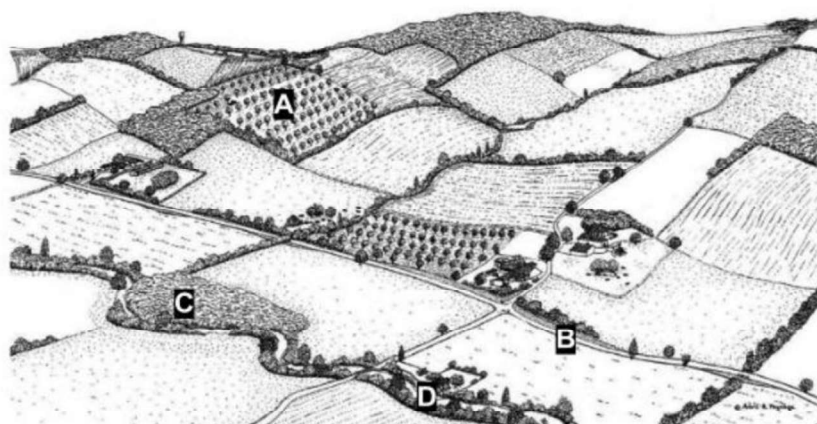


Figure 1: A ‘healthy’ landscape has trees in a patchwork of copses, strips, clumps and lines

*Note: Isolated trees in fields are particularly valuable. Catch-crops and cover-crops are also needed. LPIS systems can provide farmers with access to annotated orthophotos of their farms, and can be used with models which include soil type and slope to predict runoff and erosion. This will help plan the use of trees in areas subject to erosion (A) or flooding (C). Trees can also be sited along roads (B) and streams (D), with the latter serving as riparian buffers to reduce nitrate and sediment reaching water courses. Drawing by French artist D. Dellas (Arbre et Paysage 32).*

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